

horse-power could be delivered on the buss bars. Kenora was marketing all the power it could sell at present. He could not name any industries likely to locate there. \$25 per horse-power would be a fair price for the town to pay for power used for municipal work. The Province of Quebec was preferable for the pulp industry. Shawinigan sold power at \$10 to secure the location of industries. He would place no value on the undeveloped power unless he had a franchise from the town. He valued the power at \$2 per horse-power, or say \$10,800 with the town franchise, because he saw no prospect of further market for power. The cost of the work was not very unreasonable. He did not take steam into consideration in arriving at the value of the water power. The present prices in the town's contract with the milling company were ridiculous. All other sales of power were speculative. If the price of the power sold were higher, the value of the power undeveloped would be higher also. The power was a favorable one to develop.

Clemens Herschell, C.E., New York: The valuation of lands and water rights came up frequently in practice, in cases where he had advised. He had examined the ground, and had read the evidence of Messrs. Smith, Ruttan and Kennedy. The Lake of the Woods had three artificial outlets. An artificial outlet was one that was controlled by man, and that had a depreciating effect on the eastern outlet, because it was subject to the other two outlets as to the quantity of water, making the east branch an undesirable power site, as its rights were not defined, making it liable to litigation, so that a prudent purchaser would not invest in it. It was impossible to say how much power was appurtenant to the east branch.

He thought the development was properly designed and built; the cost of \$350,000 was not excessive, and \$100,000 to complete it was all right, making a total of \$450,000, or \$90 per horse-power, which was a fair price for development.

In considering the price to sell power at, he would keep in mind two possible competitors, but would not be afraid of steam power, which would cost more. The elements that went to make up value were:—facility of development, height of fall, size of block of power to be developed, ice troubles, market for sale of power, demand for it, facility of securing skilled and unskilled labor, population, and, above everything, freight rates for general manufacture. There were two classes of power, one local for lighting and traction and the other for manufacturing on a larger scale. For the latter, freight rates were the important consideration. Without favorable freight rates a manufacturer would not settle down. In that case, there was also the possibility of competition arising from the development of the two other outlets. Owing to the importance of freight rates, powers in the central part of Ontario were in competition with Kenora. This was a matter of experience in the business. The effect of competition would be to reduce the value of a water power. It was governed by the law of supply and demand, and nothing else, having regard to the other considerations also.

Six or seven hundred h.p. was too small to develop in the east branch or anywhere else. As at 1904, the west branch possibilities would have a depreciating effect on the east branch, as the west branch might be developed at any time, being then partially developed, and the fact of it having been lying so long incomplete shows that the place was undesirable to settle in for manufacturing purposes, for had it been desirable, it would have been completed.

In 1904, the owners of the east branch, having no franchise or contracts for power, their water rights were worth nothing, or some nominal sum, according to how eager

a man was to start in an investment of that sort. If a man paid \$1,000, that would be a buyer's price; if he paid \$5,000, that would be a fair price between man and man, and if he paid \$10,000, he would pay too much. This covered everything—water and land rights—and an obligation or assurance that the level of the Lake of the Woods be kept up, and a settlement as to how much water might be drawn out by each.

He did not think that a prudent purchaser would invest his money in the property which the town was expropriating, and unless something more than lighting and traction was in sight, an investor would have no use for such property. The town saw victory, and saw no such word as fail, and rushed in where an ordinary individual would not.

The Hudson Bay land was more valuable than the Keewatin property, as it gave access to the power. The denser the population, the more power sites were worth as a rule. Prices for power had been declining, and there was not much in the business now.

SOCIETY NOTES.

Central Railway and Engineering Club of Canada.—The above society will meet at the Prince George Hotel, Toronto, on Tuesday, March 15th, at 8 p.m. when Mr. M. J. Quinn, manager National Equipment Company, Toronto, will read a paper on Sewage Disposal and Water Supply.

Dominion Land Surveyors.—The annual meeting of the Association of Dominion Land Surveyors closed with a banquet in the Russell hotel. The president, Mr. R. E. George was toast master. Senator Casgrain replied for the Senate, and Dr. Cash, M.P., for the House of Commons. Mr. George Rainboth proposed the toast to the Profession and Mr. C. A. Magrath, M.P., responded.

An excellent paper was given in the morning by W. M. Tobey, M.A., D.L.S., of the observatory, entitled, "A Comparison of Geodetic and Astronomic data and results deduced therefrom," and another by A. O. Wheeler, D.L.S., of Calgary, describing the work of the Alpine Club of Canada. In the afternoon R. E. Young, D.L.S., president for the Association gave an interesting paper on the North Land of Canada.

The officers elected for the coming year are: Dr. W. F. King, of Ottawa, honorary president; Mr. Thos. Fawcett, of Niagara Falls, president; Mr. P. R. A. Belanger of Ottawa, vice-president; Mr. A. W. Ashton, of Ottawa, secretary-treasurer; executive, Messrs. J. D. Craig of Ottawa; C. F. Aylesworth of Madoc, Ont.; and F. T. Nash of Ottawa.

Nova Scotia Society of Engineers.—Mr. T. J. McKavanagh, Chief Electrician of the Cable Steamer Minia, will read a paper on "Submarine Cables," at the regular monthly meeting of this Society, held on Thursday, March 10th, at 8.15 p.m., in the Nova Scotia Technical College, Spring Garden Road, Halifax.

Engineering Society, McGill.—The first annual dinner of the Faculty of Applied Science was held in the Place Vigir Hotel, on the evening of Tuesday, March 1st, and in numbers and enthusiasm was one of the best of its kind ever held at McGill.

The guest of honor was Hon. Sydney Fisher, Minister of Agriculture. The guests numbered many prominent engineers, including Controller Wanklyn, Mr. John Kennedy, Dr. Milton Hersey and Mr. F. W. Cowie. Mayor Guerin was also present.

The toast master's chair was occupied by Mr. O. N. Brown, President of the Applied Science Undergraduate's Society, who proposed the toast to "The King." "Our Guests," was proposed by Mr. W. A. Robertson and responded to by Hon. Sydney Fisher, Mayor Guerin and Mr. F. L. Wanklyn. Mr. Fisher dwelt on the wonderful opportunities which Canada presented to the engineer. "The country," he said, "was crying aloud for men of skill in the sciences, following the steady influx of capital for development." Hon. Mr. Fisher alluded to the achievements of the agriculturalists of the three prairie provinces. It was a matter of great pride to Canada to observe the work done

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